

CLAIMS

1. A gear change mechanism comprising:

a rotary input member and a rotary output member;

5 a planetary gear set comprising a sun gear, a set of planet gears meshing with the sun gear and borne by a common planet carrier, and an annulus meshing with the planet gears;

and a gear selector member arranged to turn with one of said input member and output member and borne for axial movement relative to the planetary gear set;

10 a first of said sun gear, planet carrier and annulus being arranged to turn with the other of said input member and output member, and a second of said sun gear, planet carrier and annulus being held non-rotatably;

the gear selector member comprising first and second sets of dogs spaced radially relative to each other;

15 said first and the third of said sun gear, planet carrier and annulus being arranged to turn with third and fourth sets of dogs respectively which are adapted to engage with said first or said second set of dogs respectively when the gear selector member is moved to a respective axial position;

20 the torque-transmission contact faces of the dogs in each of said sets having a greater radial than axial dimension, and the circumferential widths of the dogs in each of said sets being less than the circumferential spacing of the dogs in the respective set with which they are adapted to engage.

2. A mechanism according to claim 1 wherein the gear selector member is
25 borne upon the rotary output member to transmit rotation thereto but with freedom to move axially relative thereto.

3. A mechanism according to claim 1 or claim 2 wherein the sun gear is arranged to turn with the rotary input member, the annulus is held non-rotatably, and
30 the sun gear and planet carrier are arranged to turn with said respective sets of dogs.

4. A mechanism according to claim 1 or claim 2 wherein the sun gear is arranged to turn with the rotary input member, the planet carrier is held non-rotatably, and the sun gear and annulus are arranged to turn with said respective sets of dogs.

35

5. A mechanism according to any preceding claim wherein the gear selector member includes a disc-like portion with said first and second sets of dogs formed on opposite sides thereof.

5 6. A mechanism according to any preceding claim wherein the third and fourth sets of dogs are formed on respective separate ring-like components which are assembled in torque-transmitting relation with the respective sun gear, planet carrier or annulus.

10 7. A drive configuration for a skid steered vehicle comprising a respective drive member at each side of the vehicle; at least one propulsion motor coupled to turn said drive members and coupled through a controlled differential device to a steer motor; and a respective gear change mechanism according to any preceding claim in the transmission between said propulsion motor(s) and each said drive member.

15

8. A vehicle equipped with a drive configuration according to claim 7.